

WHAT IS CLAIMED IS:

1. A transmitting device which is provided with a plurality of communication interfaces connectable to a plurality of respective communication lines and transmits data through the communication interface, wherein, if a communication line is disconnected while data is being transmitted, an appropriate communication line is selected based on predetermined criteria for communication line connection; a communication interface corresponding to the communication line is driven to establish connection with the communication line; and the data is transmitted.

2. A transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, the transmitting device further comprising a data storing means for storing data to be transmitted, wherein, if a communication line is disconnected while data is being transmitted, an appropriate communication line is selected based on a predetermined criteria for communication line connection; a communication interface corresponding to the communication line is driven to establish connection with the communication line; and said data generated and stored in said data storing means while

the communication line is disconnected is transmitted together with data to be transmitted.

3. A transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, the transmitting device further comprising a data storing means for storing data to be transmitted, wherein, while data is being transmitted, communication interfaces which are not transmitting are driven to connect communication lines corresponding to the communication interfaces; and the conditions of the communication line are examined to obtain up-to-date information about the conditions of the communication lines, and wherein, if a communication line is disconnected while data is being transmitted, an appropriate communication line is selected based on criteria for communication line connection updated with said up-to-date information; a communication interface corresponding to the communication line is driven to establish connection with the communication line; and said data generated and stored in said data storing means while the communication line is disconnected is transmitted together with data to be transmitted.

4. A transmitting device which is provide with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, the transmitting device further comprising a data storing means for storing data to be transmitted, wherein, while data is being transmitted, a communication interface which is not transmitting is selected to connect a communication line corresponding to the communication interface; and up-to-date information about the conditions of communication lines is externally acquired through the communication line, and wherein, if a communication line is disconnected while data is being transmitted, an appropriate communication line is selected based on criteria for communication line connection with said up-to-date information taken into account; a communication interface corresponding to the communication line is driven to establish connection with the communication line; and said data generated and stored in said data storing means while the communication line is disconnected, is transmitted together with data to be transmitted.

5. A transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, the transmitting device further comprising a

data storing means for storing data to be transmitted, wherein, if a communication line is disconnected while data is being transmitted, a plurality of communication lines are selected based on predetermined criteria for communication line connection; a plurality of communication interfaces corresponding to a plurality of the communication lines are driven to establish connection with a plurality of the communication lines; and said data generated and stored in said data storing means while the communication line is disconnected and data to be transmitted are transmitted through different communication lines among the a plurality of the connected communication lines.

6. A transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, the transmitting device further comprising a data storing means for storing data to be transmitted and a sensor for detecting any change in the situations of said transmitting device or the surrounding situations, wherein, if said sensor detects said change in the situations while data is being transmitted, the transmission of the data is continued and further a communication interface which is not in communication is connected; a communication line corresponding to the communication interface is connected;

and data generated and stored in said data storing means round about the time when said sensor detected said change in the situations is transmitted through the communication line.

7. A video camera device which is provided with an image pickup portion; a compressing portion which compresses the data of images picked up by the image pickup portion; and a transmitting device which includes a plurality of communication interfaces connectable to communication lines and transmits compressed image data compressed by said compressing portion through the communication interfaces, the video camera device further comprising a data storing means which stores high-image quality data lower in data compression ratio than compressed image data to be transmitted; and a sensor for detecting any change in the situations of said transmitting device or the surrounding situations, wherein, if said sensor detects said change in the situations while said compressed image data is being transmitted, a communication interface which is not transmitting is driven to connect a communication line corresponding to the communication interface; and said high-picture quality data stored in said data storing means is transmitted.

8. A transmitting device which is provided with a data dividing portion which divides data to be transmitted and transmits pieces of data divided by the data dividing portion in parallel using a plurality of communication interfaces, wherein, if a communication line is disconnected while data is being transmitted, the data to be transmitted divided by said data dividing portion is re-divided into a number corresponding to the number of the remaining communication lines and the re-divided data is transmitted through said remaining communication lines.

9. The transmitting device according to Claim 1, further comprising a battery, wherein at the time of power failure, the power supply to said transmitting device is switched to said battery, and if said transmitting device is transmitting data at this time, a communication interface corresponding to a communication line lowest in power consumption when connected is selected from among a plurality of communication interfaces to establish connection with the communication line, and data is transmitted.

10. The transmitting device according to Claim 8, further comprising a battery, wherein, at the time of power failure, the power supply to said transmitting device is switched to

said battery and, if said transmitting device is transmitting divided data using a plurality of communication lines at this time, only a communication interface corresponding to a communication line lowest in power consumption is selected from among a plurality of communication interfaces in communication and driven to establish connection with the communication line, and data is transmitted.

11. The transmitting device according to Claim 9, further comprising a sensor for detecting any change in the situations of said transmitting device or surrounding situations, wherein, if said sensor detects said change in the situations while said transmitting device is transmitting data through a communication interface lowest in power consumption at the time of power interruption, a communication interface corresponding to a communication line highest in communication speed among a plurality of said communication interfaces is selected and driven, and data is transmitted.

12. The transmitting device according to Claim 1, wherein said criteria for communication line connection include at least one of the following: communication speed, communication cost, power consumption, the reliability of

line connection, the conditions of communication lines, the conditions of the transmitting device, and the conditions of a receiver as the destination of transmission.

13. A transmitting method for a transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, wherein, if a communication line is disconnected while data is being transmitted, a communication interface corresponding to another communication line is driven to establish connection with the communication line and data is transmitted.

14. A transmitting method for a transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, wherein, if a communication line is disconnected while data is being transmitted, a communication interface corresponding to another communication line is driven to establish connection with the communication line, and said data stored while the communication line is disconnected is transmitted together with data to be transmitted.

15. A transmitting method for a transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, wherein, if a communication line is disconnected while data is being transmitted, a plurality of communication interfaces corresponding to a plurality of other communication lines are driven to establish connection with a plurality of the communication lines, and data stored while the communication line is disconnected and data to be transmitted are transmitted through different communication lines among a plurality of said connected communication lines.

16. A transmitting method for a transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits data through the communication interfaces, wherein, if there is any change in the situations of said transmitting device or the surrounding situations while data is being transmitted, the transmission of the data is continued and further a communication interface not in communication is connected to establish connection with a communication line corresponding the communication interface, and data

generated round about the time when the said change in the situations occurred is transmitted.

17. A transmitting method for a video camera device which is provided with an image pickup portion; a compressing portion which compresses the data of images picked up by the image pickup portion; and a transmitting device which is provided with a plurality of communication interfaces connectable to communication lines and transmits compressed image data compressed by said compressing portion through the communication interfaces, wherein, if said sensor detects said change in the situations while said compressed image data is being transmitted, a communication interface which is not transmitting is driven to connect a communication line corresponding to the communication interface, and high-picture quality data lower in data compression ratio than said compressed image data stored is transmitted.

18. A transmitting method for a transmitting device, wherein a plurality pieces of data obtained by dividing data to be transmitted are transmitted in parallel using a plurality of communication interfaces, and, if a communication line is disconnected while the data is being transmitted, the data to be transmitted is re-divided into a number

corresponding to the number of the remaining communication lines and the re-divided data is transmitted through the remaining communication lines.